

REMARKS

Claims 1 and 3 through 30 are in the application, with Claims 7 through 9 and 16 through 26 being withdrawn from consideration. Claims 1, 6, 11 and 27 have been amended, Claim 2 has been cancelled, and Claims 29 and 30 have been added. Of the claims currently under consideration, Claims 1, 11 and 27 are independent. No new matter has been added. Reconsideration and further examination are respectfully requested.

Applicants hereby affirm the provisional election made by Applicants' undersigned representative on June 8, 2005. Specifically, Applicants elect for prosecution the species shown in FIG. 3A of the present application. In this regard, newly-added Claims 29 and 30 are readable on the elected species and examination thereof is respectfully requested.

Claims 1 through 6 and 10 through 15 are rejected under 35 U.S.C. §103 over U.S. Patent Application Publication No. 2002/0004251 ("Roberts") in combination with U.S. Patent No. 5,919,329 ("Banks"); and Claims 27 and 28 are rejected under 35 U.S.C. §103 over Roberts in combination with Banks and U.S. Patent No. 6,494,371 ("Rekow"). Reconsideration and withdrawal of these rejections are respectfully requested.

Claim 1

Amended independent Claim 1 relates to a device including a semiconductor substrate, a pixel cell array integrated with the semiconductor substrate, a light switching layer in contact with the pixel cell array, a substantially transparent protective cover coupled to the light switching layer, and a base coupled to the semiconductor substrate. Thermal expansion characteristics of the base are substantially similar to thermal expansion characteristics of the protective cover. Such an arrangement may serve to add stability to the above elements during thermal gradients according to some embodiments.

The art of record is not seen to disclose or to suggest the foregoing features of amended Claim 1. For example, the art of record does not disclose or suggest at least the claimed substrate, pixel cell array, light switching layer, protective cover, and base, wherein thermal expansion characteristics of the base are substantially similar to thermal expansion characteristics of the protective cover.

Roberts, for instance, describes a package for a light-emitting diode (LED) and a method of making the package. The package includes a single optical radiation emitter 202, which is composed of bond pad 502, current spreading layer 601, emission layer 602, substrate 501 and optical metal coating 603. Such a package cannot be seen to disclose or to suggest at least a pixel cell array integrated with a semiconductor substrate, a light switching layer in contact with the pixel cell array, and a substantially transparent protective cover coupled to the light switching layer.

Banks is not seen to remedy the foregoing deficiencies in Roberts. Banks describes package 512 and lid 532 having approximately matching coefficients of thermal expansion (CTEs). Such matching creates opposing bending moments between package 512 and lid 532. Banks does not, however, describe or otherwise suggest a base coupled to a semiconductor substrate and a substantially transparent protective cover coupled to a light switching layer in contact with a pixel cell array integrated with the semiconductor substrate. Moreover, Banks does not disclose or suggest that thermal expansion characteristics of such a base may be substantially similar to thermal expansion characteristics of such a protective cover.

Amended independent Claim 1 and its dependent claims are therefore believed to be in condition for allowance.

Claim 11

Amended independent Claim 11 relates to a system including a microdisplay IC and a chip carrier. The microdisplay IC includes a semiconductor substrate, a pixel cell array integrated with the semiconductor substrate, a light switching layer in contact with the pixel cell array and a substantially transparent protective cover coupled to the light switching layer. The chip carrier defines a recess, and the microdisplay IC is mounted within the recess.

The art of record is not seen to disclose or to suggest the foregoing features of amended Claim 11, particularly with respect to the claimed substrate, pixel cell array, light switching layer, protective cover, and base, which comprise a microdisplay IC mounted in the recess of a chip carrier. Roberts fails to disclose or suggest the elements of the claimed microdisplay IC, let alone a chip carrier defining a recess in which such a microdisplay IC is mounted. Banks,

moreover, does not disclose or suggest, and has not been cited as disclosing or suggesting, any of the elements of amended independent Claim 11 that are not present in Roberts..

Amended independent Claim 11 and its associated dependent claims are therefore believed to be in condition for allowance.

Claim 27

Amended independent Claim 27 relates to a system including an Ultra High Pressure light source to emit light, a condenser lens to condense the light, a display device to receive the condensed light and to emit image light, and a projector lens to project the image light. The display device includes a semiconductor substrate, a pixel cell array integrated with the semiconductor substrate, a light switching layer in contact with the pixel cell array, a substantially transparent protective cover coupled to the light switching layer, and a base coupled to the semiconductor substrate, thermal expansion characteristics of the base being substantially similar to thermal expansion characteristics of the protective cover.

The art of record is not seen to disclose or to suggest the foregoing features of amended Claim 27. Specifically, the art of record does not disclose or suggest at least the claimed substrate, pixel cell array, light switching layer, protective cover, and base, wherein thermal expansion characteristics of the base are substantially similar to thermal expansion characteristics of the protective cover.

The LED package of Roberts cannot be seen to disclose or to suggest at least a pixel cell array integrated with a semiconductor substrate, a light switching layer in contact with the pixel cell array, and a substantially transparent protective cover coupled to the light switching layer. Banks does not, as mentioned above, describe or otherwise suggest a base coupled to a semiconductor substrate and a substantially transparent protective cover coupled to a light switching layer in contact with a pixel cell array integrated with the semiconductor substrate. Banks also does not disclose or suggest that thermal expansion characteristics of such a base may be substantially similar to thermal expansion characteristics of such a protective cover.

The additionally-cited Rekow reference describes a laser light projector to illuminate light modulators. Rekow has not been cited as containing, and is not seen to contain, any

disclosure to make up for the foregoing deficiencies in the rejection of Claim 27. Specifically, Rekow is not seen to disclose or to suggest a base coupled to a semiconductor substrate and a substantially transparent protective cover coupled to a light switching layer in contact with a pixel cell array integrated with the semiconductor substrate, wherein thermal expansion characteristics of such a base may be substantially similar to thermal expansion characteristics of such a protective cover

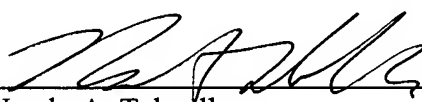
Amended independent Claim 27 and its dependent claims are therefore believed to be in condition for allowance.

CONCLUSION

Accordingly, Applicants respectfully request allowance of the pending claims. If any issues remain, or if the Examiner has any further suggestions for expediting allowance of the present application, the Examiner is kindly invited to contact the undersigned via telephone at (203) 972-0049.

Respectfully submitted,

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Date



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